TECHNICAL FACT SHEET FOR NO FURTHER ACTION AT INSTALLATION RESTORATION (IR) SITE 10, NAVAL RADIO RECEIVER FACILITY (NRRF), CORONADO, CALIFORNIA

Based on the information provided by the Navy for IR Site10, Naval Radio Receiver Facility (NRRF), Coronado, the San Diego Regional Board understands that:

1. IR Site 10 is identified as approximately 2 acres where past activities at the site have resulted in various piles of rubble scattered in an area northeast of the radio compass area. The rubble has been assumed to be derived from the demolition of Fort Emory and from construction of the antenna arrays at the facility which predominantly consisted of concrete, metal scrap, and wood scrap with no evidence of hazardous waste disposal. Hazardous materials have not been historically used at the facility.

2. Previous Investigation and Remedial Actions at IR Site 10 include:

    - A site investigation conducted in 2002 included collection of soil and groundwater samples at the site and performance of a screening-level human health risk assessment.

    - A total of four groundwater monitoring wells have been installed at the site to assess possible hazardous waste releases associated with the various piles of rubble recognized as NRRF IR Site 10.

    - Previous method reporting limits for copper and nickel were greater than project threshold limits, and therefore metals were identified as potential contaminants of concern for further evaluation.

    - Four quarterly groundwater monitoring events have been conducted to further assess low level metals concentration in site groundwater.

3. Results of groundwater monitoring at IR Site 10 have verified the presence of arsenic and copper in groundwater at the site.

    - The 16 groundwater samples collected during quarterly sampling show a range of arsenic concentrations from 1.97 µg/L to 9.56 µg/L. These concentrations are lower than the water quality objectives for human health protection and saltwater aquatic life protection (36 µg/L).

    - Detected copper concentrations from the 16 groundwater samples collected during quarterly sampling at the site range from 0.669 to 4.14 µg/L. Two detected groundwater copper concentrations of 3.3 µg/L and 4.14 µg/L were above the water quality objectives for human health and saltwater aquatic life protection (3.1 µg/L).

4. The narrow range of detection and uniformity of copper and arsenic concentrations in samples collected from up-gradient and down-gradient wells at the site, and lack of a spatial gradient indicate a natural source (a large enclosed drainage basin located immediately adjacent and generally up-gradient of the site) for the presence of these constituents in groundwater. The basin/depression located next to the site collects rainfall and runoff from the surrounding area that then evaporates to concentrate major and trace elements; including arsenic and copper. During the evaporative process and with each subsequent rainfall event, the naturally occurring evaporates are then re-dissolved into solution and infiltrate downward to groundwater.

5. Copper concentrations detected in groundwater do not appear to pose a threat to aquatic receptors. The maximum detected copper concentration of 4.14 µg/L does not represent a constant input to the receiving water body and is approximately 0.37 miles from the closest surface water receptor (the ocean). The National Oceanic and Atmospheric Administration (NOAA) Coastal Protection and Restoration Division (CRP) determined that given the dilution expected during groundwater migration and upon discharge of groundwater to surface water, a value of 10 times the applicable ambient water quality criteria (3.1 µg/L x 10 = 31 ug/L) was to be used for screening.

6. The Department of the Navy (DON) has demonstrated through site history, visual inspections, field investigations, laboratory analysis results, evaluation or assessment of potential ecological and human health risks, and removal action and verification sampling that further remedial action is not required to protect human health or the environment at IR Site 10. In selecting the no action remedy for IR Site 10, the DON has determined that the existing condition of the site is protective of human health and the environment and complies with Federal and State requirements.

7. Groundwater under NASNI has been classified as having neither existing nor potential beneficial uses. It is exempt from municipal consideration and has not been developed for use by either the City of Coronado or NASNI because of limited recharge rate and saline water quality. Ground and drinking water wells, deeper drinking water aquifers, surface waters, or sensitive receptors are not likely to be impacted.

8. The Regional Board’s obligation to inform the public of the Closure of IR Site 10 pursuant to the State and Regional Boards’ Public Participation Guidance document was fulfilled via the November 2008 Regional Board agenda.